Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-25   Cancelled

26. (New) A digital imaging system comprising:

a digital camera including an image sensor for capturing image frames, the digital camera also including:

a volatile memory for temporarily storing the captured image frames as raw image data;

a program memory for storing image processing algorithms;

an image processor for executing a first plurality of stored image processing algorithms in order to process the raw image data to produce processed image data, the first plurality of stored image processing algorithms including color filter array interpolation, tone scale compensation, color space transformation, and compression;

a nonvolatile memory for storing the first processed image data;

a printer interface for directly connecting the digital camera to the digital printer to enable the digital camera to receive fixed printer parameters and variable printer parameters from the digital printer and to provide second processed image data to the digital printer; and

a parameter memory for storing the fixed printer parameters and the variable printer parameters received from the digital printer; and

the printer comprising:

a media transport mechanism and a marking apparatus for producing a print using process colors;

a memory for storing the fixed printer parameters and the variable printer parameters;

a processor for controlling the media transport mechanism and the marking apparatus, the processor being coupled to the memory to read the stored fixed printer parameters and variable printer parameters; and

-2-

a camera interface coupled to the processor, for providing the fixed printer parameters and the variable printer parameters to the digital camera and for receiving the second processed image data from the digital camera; and

wherein the image processor in the digital camera executes a second plurality of stored image processing algorithms in order to produce the second processed image data, the second plurality of stored image processing algorithms including decompression, color space transformation into color planes that co-incide with the process colors of the digital printer, and compensation for the printing process, the compensation being responsive to the fixed printer parameters and variable printer parameters stored in the parameter memory.

27. (New) The digital imaging system as set forth in claim 26 wherein the variable printer parameters compensate for printing process variations determined when the printer is manufactured.

28. (New) The digital imaging system as set forth in claim 27 wherein the variable printer parameters are measured using an external means.

29. (New) The digital imaging system as set forth in claim 26 wherein the camera interface and printer interface are provided using a cable connection.

30. (New) The digital imaging system as set forth in claim 26 wherein the camera interface and printer interface are provided using infrared transmission.

31. (New) A digital imaging system as recited in claim 26 further comprising:

first printing parameters which can vary during printing transmitted by the printer to the digital camera and wherein the compensation is responsive to the first printing parameters which can vary during printing.

32. (New) A digital imaging system as recited in claim 31 further comprising:

second printing parameters which vary with particular media type used in the printer and wherein the compensation is responsive to the second printing parameters.

33. (New) A digital imaging system as recited in claim 32 wherein:

the first printing parameters allow for compensation for printing temperature variations.

34. (New) A digital imaging system as recited in claim 32 wherein:

the first printing parameters allow for compensation for ink viscosity variations.

35. (New) A digital imaging system as recited in claim 32 wherein:

the second printing parameters allow for compensation for manufacturing variations of a particular media type.

36. (New) A digital imaging system comprising:

a digital camera including an image sensor for capturing image frames, the digital camera also including:

a volatile memory for temporarily storing the captured image frames as raw image data;

a program memory for storing image processing algorithms;

an image processor for executing a first plurality of stored image processing algorithms in order to process the raw image data to produce processed image data, the first plurality of stored image processing algorithms including color filter array interpolation, tone scale compensation, color space transformation, and compression;

a nonvolatile memory for storing the first processed image data;

a printer interface for directly connecting the digital camera to the digital printer to enable the digital camera to receive printer parameters from the digital printer and to provide second processed image data to the digital printer; and

a parameter memory for storing the printer parameters received from the digital printer; and

the printer comprising:

a media transport mechanism and a marking apparatus for producing a print using process colors;

a memory for storing the printer parameters, the printer parameters identifying a print size;

a processor for controlling the media transport mechanism and the marking apparatus, the processor being coupled to the memory to read the stored printer parameters; and

a camera interface coupled to the processor, for providing the printer parameters to the digital camera and for receiving the second processed image data from the digital camera; and

wherein the image processor in the digital camera executes a second plurality of stored image processing algorithms in order to produce the second processed image data, the second plurality of stored image processing algorithms to perform decompression and print re-sizing responsive to the printer parameters stored in the parameter memory.

37. (New) A process for capturing and printing images comprising the steps of:

capturing image frames with a digital camera including an image sensor;

storing the captured image frames in a volatile memory of the digital camera as raw image data;

executing a first plurality of stored image processing algorithms in order to process the raw image data to produce processed image data, the first plurality of image processing algorithms including color filter array interpolation, tone scale compensation, color space transformation, and compression;

storing in a nonvolatile memory the first processed image data;

receiving from a printer directly connected to the digital camera fixed printer parameters and variable printer parameters from the digital printer; and

storing the fixed printer parameters and variable printer parameters in a parameter memory in the digital camera; and

executing a second plurality of image processing algorithms in order to produce the second processed image data, the second plurality of image processing algorithms including decompression, color space transformation into color planes that co-incide with process colors of the digital printer, and ·

compensation for the printing process, the compensation being responsive to the fixed printer parameters and variable printer parameters stored in the parameter memory;

transferring the second processed image data from the digital camera to the printer; and

producing a print using the second processed image data.

38. (New) A process as set forth in claim 37 wherein the variable printer parameters compensate for printing process variations determined when the printer is manufactured.

39. (New) A process as set forth in claim 38 wherein the variable printer parameters are measured using an external means.

40. (New) A process as recited in claim 37 further comprising:

transmitting first printing parameters which can vary during printing from the printer to the digital camera and wherein the compensation is responsive to the first printing parameters which can vary during printing.

41. (New) A process as recited in claim 30 further comprising:

transmitting second printing parameters which vary with particular media type used in the printer from the printer to the digital camera and wherein the compensation is responsive to the second printing parameters.

42. (New) A process as recited in claim 41 wherein:

the first printing parameters allow for compensation for printing temperature variations.

43. (New) A process as recited in claim 41 wherein:

the first printing parameters allow for compensation for ink viscosity variations.

44. (New) A process as recited in claim 41 wherein:

the second printing parameters allow for compensation for manufacturing variations of a particular media type.

45. (New) A digital imaging system as recited in claim 36 wherein:
the digital camera is a portable, hand-held digital image capture device adapted to capture original digital images of objects at varying distances and in variable ambient light conditions.